

**BELKIN**

# Wireless USB Print Server

*Share your USB printers wirelessly with  
your networked computers*



**User Manual**

F1UP0001

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# INTRODUCTION

Thank you for purchasing the Belkin Wireless USB Print Server. Now you can share your USB-equipped printers around the home or office—without using cables. This product adds the convenience of wireless connection to conventional print-server functionality. It offers an easy installation and setup to have you sharing printers wirelessly in minutes. Please read through this manual completely to be sure that you are getting the most from your Print Server.

## System Requirements

- Printer compatible with USB 1.1
- USB cable for each printer
- 802.11g or 802.11b wireless network
- PC with Windows® 98SE, Me, 2000, XP

## Package Contents

- Belkin 802.11g Wireless USB Print Server
- Ethernet cable (not needed for wireless operation)
- Installation Software CD
- User Manual
- Quick Installation Guide
- Registration Card

## Features

This device complies with the IEEE 802.11g standard in order to communicate with other 802.11b- and 802.11g-compliant wireless devices at 11Mbps and 54Mbps. 802.11g products run at speeds of up to 54Mbps and operate on the same 2.4GHz frequency band as 802.11b Wi-Fi products.

- Integrated, easy-to-use Print Server Setup Wizard
- Wireless interface compliance with the IEEE 802.11g standard products
- Ethernet interface, for operation in virtually all Ethernet networks
- 64- or 128-bit wireless encryption (WEP)
- Support for both Infrastructure and Ad-Hoc (peer-to-peer) networking modes
- Data rate of up to 54Mbps
- Easy installation and use
- External antenna
- LEDs: Power, Ethernet link, Wireless, Status, and Error

## Applications and Advantages

- **Wireless printing around the home or office**  
Offers the freedom of printing from networked PCs without cables.
- **Connection rates of up to 54Mbps (802.11g)**  
Provides immediate, higher-speed wireless connectivity at home and work, without compromising the use of existing 802.11b products.
- **Compatibility with 802.11b products**  
802.11g wireless LAN solutions are backward-compatible with existing Wi-Fi (IEEE 802.11b) products and with other IEEE 802.11g products.
- **Difficult-to-wire environments**  
Enables printer sharing in buildings with solid or finished walls, or open areas where wiring is difficult to install.
- **Frequently changing environments**  
Adapts easily in offices or environments that frequently rearrange or change locations.
- **Temporary LANs for special projects or peak time**  
Sets up temporary networks such as at trade shows, exhibitions, and construction sites, which need networks on a short-term basis; also

## OVERVIEW

companies that need additional printers for a peak activity period.

- **SOHO (Small Office/Home Office) networking needs**  
Provides easy and quick small network installations that SOHO users need.

### Product Specifications

#### Standards:

IEEE 802.3  
IEEE 802.3u  
IEEE 802.11g  
IEEE 802.11b

#### Wireless:

Radio Technology	Direct Sequence Spread Spectrum (DSSS)
Data Rate	802.11b: 11, 5.5, 2, 1Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6Mbps
Modulation	802.11b: CCK, DQPSK, DBPSK 802.11g: OFDM
Operating Frequency	2.412–2.497GHz ISM band
Operating Channels	802.11b: 11 for North America, 13 for Europe 802.11g: 11 for North America, 13 for Europe
Security	64-bit WEP/128-bit encryption

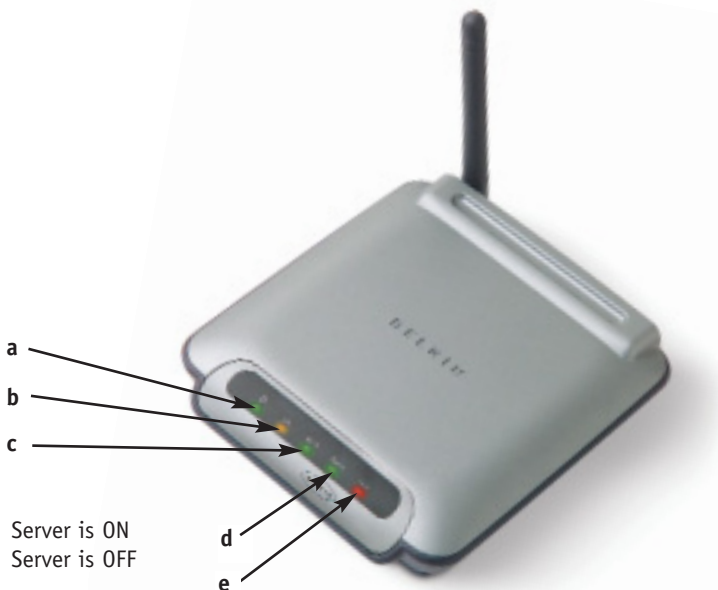
**Protocol Supported:** CSMA/CD, TCP, IP, UDP

**Management:** Software & Browser-based

**Ports:**  
1 10/100Base-T RJ45 port  
2 USB ports  
1 power jack  
1 reset button

# OVERVIEW

## Knowing your Print Server



### a. Power LED

Solid: Server is ON  
Off: Server is OFF

### b. LAN LED

Solid: Connected to Ethernet  
Off: Ethernet disconnected  
Blinking: Transferring data  
Green: 10Mbps device connected  
Amber: 100Mbps device connected

### c. WLAN Link LED

Solid: Print Server is LINKED to a wireless network  
Blinking: Transferring data wirelessly  
Off: Print Server is NOT linked

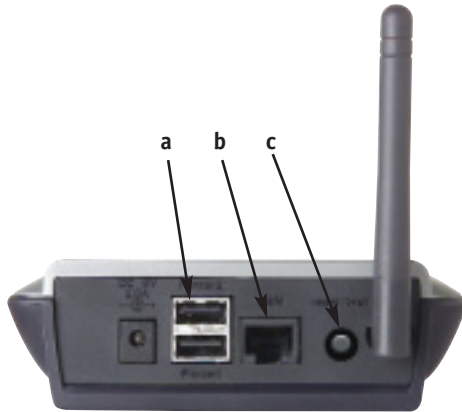
### d. Status LED

Solid: OK  
Blinking: Attempting to obtain IP address while booting, or printing in progress

### e. Error

Solid (Red): Printer missing or printer error  
Off: OK

## OVERVIEW



### a. Printer 1/Printer 2

These ports are used to connect one or two USB printers.

*Note: These ports cannot be expanded using a USB hub.*

### b. Ethernet Port

This port is used to connect the Print Server to an Ethernet network via CAT5 cable.

*Note: Using this port will automatically disable wireless functionality in the Print Server.*

### c. Reset/Test Button (3 functions)

**Print Page:** For most printers, this function results in a test page to be printed. The test page will include Print Server settings including the IP address and other information that might be handy for troubleshooting the Print Server. To print test page, depress the Reset/Test button momentarily.

*WARNING: Some printers do not support this function.*

**Reset:** To reset or reboot the Print Server to existing settings, depress the Reset/Test button for five or more seconds.

**Restore Factory Defaults:** To restore the Print Server to factory defaults, depress the Reset/Test button for 10 seconds while powering up the Print Server.

## CONNECTING THE PRINT SERVER USING THE SETUP WIZARD

**Make sure that each computer can print to the USB printer before installing the Wireless USB Print Server.**

1. Connect your printer directly to each computer on the network and install USB printer drivers (see your printer documentation for detailed instructions). The Print Server requires that the correct drivers are loaded and working (printing) before the Print Server is installed.

When installing printer drivers, install as:

- Local printer, not network printer
- USB port
- Not to be shared
- Default printer for all printing (if desired)

*Note: Verify functionality on each computer by printing a test page prior to moving to the next installation step.*

2. Insert the Print Server Setup Wizard CD into your CD-ROM drive on the first PC.

*Note: If the Print Server Setup Wizard does not start up automatically, select your CD-ROM drive from "My Computer" and double-click on the file named "Setup" on the CD-ROM.*

3. The Wizard will start.

*Note: The Wizard will remind installer that step 1 needs to be done before continuing. If step 1 is complete, click "Next" to proceed. If not, please stop Wizard and complete step 1 for all computers.*





## CONNECTING THE PRINT SERVER USING THE SETUP WIZARD

4. Follow instructions from each screen of the Print Server Setup Wizard.
5. When you see the following screen, installation is complete for that PC. Click “Quit” and remove the CD from your computer.



**Important: Repeat Steps 2-5 for each additional PC you would like to print from.**

7. Enjoy your Print Server!

## SETUP FOR ADVANCED USERS

### Install Print Drivers

Be sure to install the necessary print drivers on each computer that will be accessing the Print Server.

### Set Up Print Server

1. Plug your printer (power on) into the Print Server.
2. Power up the Print Server within wireless range of your 802.11g or 802.11b wireless network.
3. Allow approximately one minute for the Print Server to boot.
4. Verify that the Status light is illuminated and that the Error light is not illuminated.
5. Determine the Print Server's IP address, using one of the following methods:
  - a) New Print Servers are configured to receive IP addresses dynamically. If your network has a DHCP server, the Print Server will obtain an IP address from your network. If the DHCP server supports a client list, the client list will list the IP address assigned to the Print Server. If a DHCP server is not available, after 1.5 minutes the Print Server will revert to 192.168.2.253.
  - b) If the Print Server has been configured previously, then it will have been set to a static IP address that could be different for every network.

*Note: Restoring factory defaults on the Print Server by holding in the reset button for 10 seconds while repowering the Print Server will restore the IP address to dynamic.*
  - c) Run the program "PSF.exe" from the Installation CD. This will find the IP address and link automatically to the web-based management interface.
  - d) Go to the last step of the Print Server Installation Wizard, which has an Advanced button that finds the IP address and links automatically to the web-based management interface.

## SETUP FOR ADVANCED USERS

- Verify that the computer is in the same subnet as the Print Server (The first three octets of the IP addresses are the same).
- Type the Print Server's IP address into your Internet browser from any computer. For example, if your IP address is 192.168.2.225, type "192.168.2.225" (do not type in anything else such as "http://" or "www"). Then press the "Enter" key.



- Clicking the "Login" button or clicking on any one of the links on the home page will take you to the login screen. The Print Server ships with no password entered. In the login screen, leave the password blank and click "Submit" to log in.

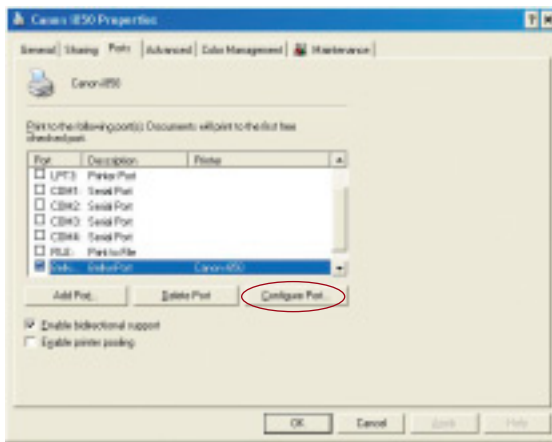


- Set the SSID of your wireless network by clicking "Channel and SSID" (see "Web Interface – Channel and SSID" for more info).
- Set the IP address for the Print Server by clicking "IP Address" (see "Web Interface – IP Address" for more info).
- Set encryption for the Print Server (if desired) by clicking "Encryption".
- Cycle power on the Print Server to reboot it to the new configurations.

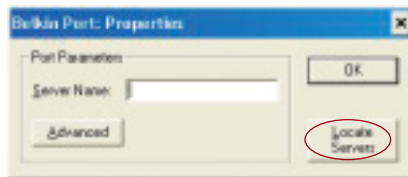
# SETUP FOR ADVANCED USERS

## Configure Computers to Print to the Print Server

1. Install Port Monitor software on each computer by running “instport.exe” from the CD.
2. Configure the Belkin Port Monitor on each computer printer driver to point to the correct Print Server as follows:
  - a) In Windows, select the printer’s properties for the printer connected to the Print Server and select the “Port” tab, select the Belkin port, and click “Configure Port...”.



- b) On the “Belkin Port: Properties” window, click “Locate Servers”.

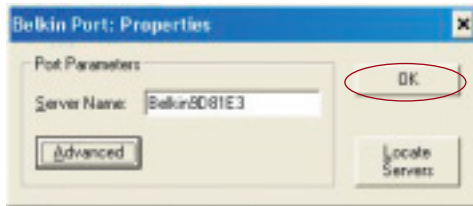


- c) On the “Available Servers” window, select the Print Server you want to print to.

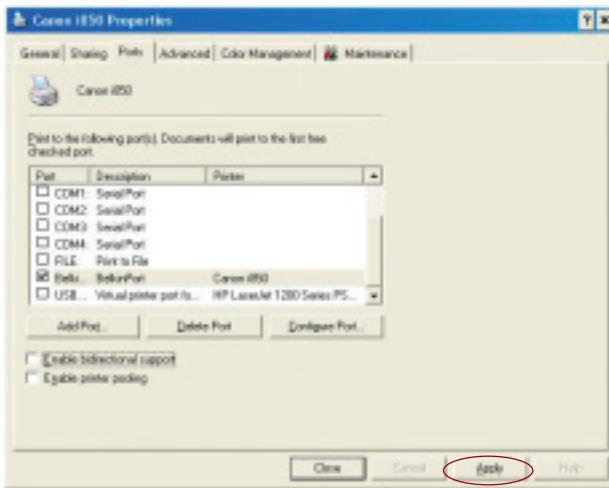


## SETUP FOR ADVANCED USERS

- d) Click “OK” to close. On the “Belkin Port: Properties” window, the name of the Print Server you selected will appear. Click “OK” to close.



- e) On the Ports tab, disable bidirectional support if currently enabled. Click “Apply”.



- f) Click “OK” to close.
- g) If there is a second printer connected to the Print Server, select the properties for that printer and click the “Ports” tab; select the Belkin port that was just configured.


*Note: If more than one Print Server is available on your network, refer to the section “Printing to Multiple Print Servers”.*


## WEB CONFIGURATION

### Accessing the Web Configuration Menus

1. Power up the Print Server that is within wireless range of your wireless network or is connected to your network using an Ethernet cable.
2. Allow approximately one minute for the Print Server to boot and obtain an IP address.
3. Determine the Print Server's IP address, using one of the following methods:
  - a) New Print Servers are configured to receive IP addresses dynamically. If your network has a DHCP server, the Print Server will obtain an IP address from your network. If the DHCP server supports a client list, the client list will list the IP address assigned to the Print Server. If a DHCP server is not available, after 1.5 minutes the Print Server will revert to 192.168.2.253.
  - b) If the Print Server has been configured previously, then it will have been set to a static IP address that could be different for every network.

*Note: Restoring factory defaults on the Print Server by holding in the reset button for 10 seconds while repowering the Print Server will restore the IP address to dynamic.*
  - c) Run the program "PSF.exe" from the Installation CD. This will find the IP address and link automatically to the web-based management interface.
  - d) Go to the last step of the Print Server Installation Wizard, which has an Advanced button that finds the IP address and links automatically to the web-based management interface.
4. Type the Print Server's IP address into your Internet browser from any computer. For example, if your IP address is 192.168.2.225, type "192.168.2.225" (do not type in anything else such as "http://" or "www"). Then press the "Enter" key.



Address  192.168.2.225

# WEB CONFIGURATION

## Web Interface – Home Page

After entering the IP address of the Print Server, you will see the screen illustrated below. This page shows most critical configuration information for the Print Server. To modify settings, choose a topic from the menu on the left of the screen.

**Print Server Setup Utility** Printer 1 > hp photosmart 7500  
Printer 2 >

Home | Help | Login

**Network Connection**

- IP Address
- Wireless
- Channel and SSID
- Encryption
- Site Survey
- Printer Service
- Print Server Configuration
- Utilities
- Restart Print Server
- Restore Factory Default
- Save Current Settings
- Restore Previous Settings
- Firmware Update
- System Settings

**Status**

You will need to log in before you can change any settings.

**Printer Status**

Printer 1 >	hp photosmart 7500	Ready
Printer 2 >		Not Connected

<b>Network Connection</b>	<b>WLAN</b>
MAC Address: 08:00:8D:80:02:01	MAC Address: 08:00:8D:80:02:01
DHCP (IPv4): Disabled	SSID: 123456789
IP Address: 192.168.1.5	Network Type: Infrastructure
Subnet Mask: 255.255.255.0	WEP: Disabled
Gateway IP Address: 192.168.2.1	Wireless Status: Enabled

<b>Print Server / Printer</b>	<b>Firmware Information</b>
Print Server Name: BELKIN08100	Firmware Version: 3.02.06
Domain/Workgroup: WORKGROUP	Boot Code Version: v1.03.11
IPP Printing: Enabled	Hardware Version: P50703-4
RAW TCP/IP Printing: Enabled	

## Web Interface – Login Screen

Clicking on any menu item will cause a login prompt to appear. If a password has been set previously, enter it here. New Print Servers ship without passwords; if this is the case, click “Submit” to continue.

**Print Server Setup Utility** Printer 1 > hp photosmart 7500  
Printer 2 >

Home | Help | Login

**Network Connection**

- IP Address
- Wireless
- Channel and SSID
- Encryption
- Site Survey
- Printer Service
- Print Server Configuration
- Utilities
- Restart Print Server
- Restore Factory Default
- Save Current Settings
- Restore Previous Settings
- Firmware Update
- System Settings

**Login:**

Before you can change any settings, you need to log in with a password. If you have not yet set a custom password, then leave this field blank and click “Submit”.

Password >

Default = leave blank

# WEB CONFIGURATION

## Web Interface – IP Address

This menu allows the user to set a Static IP address, or to set the Print Server to obtain an IP address automatically as a DHCP client. Although Belkin designs the Print Server to obtain an IP address automatically, running the Wizard will change the IP address to static. Static is the recommended method of operation, since the computer will be configured to print to a specific IP address which, if changed, would make the Print Server inoperable.

*Note: When choosing an IP address manually, be sure to choose a unique IP address in the same domain (first three sets of digits the same) as the gateway of your network.*

The screenshot shows the Belkin Print Server Setup Utility web interface. The page title is "Networking > IP Address". The left sidebar contains a navigation menu with the following items: Network Connections, IP Address (highlighted), Wireless, Channel and SSID, Encryption, Site Survey, Printer Service, Print Server Configuration, Status, Restart Print Server, Restore Factory Default, Save Current Settings, Restore Previous Settings, Firmware Update, and System Settings. The main content area displays the "IP Address" configuration options. At the top right, it shows "Printer 1 > hp photosmart 7500" and "Printer 2 >". Below the title, there is a message: "You can make changes to the Local Area Network (LAN) here. For changes to take effect, you must press the 'Apply Changes' button." The configuration options are: DHCP Client > (radio buttons for on/off), IP Address > (input fields for 192, 168, 2, 2), Subnet Mask > (input fields for 255, 255, 255, 0), and Gateway IP Address > (input fields for 192, 168, 2, 1). At the bottom, there are two buttons: "Clear Changes" and "Apply Changes".



# WEB CONFIGURATION

## Web Interface – Channel and SSID

This menu allows the user to program the wireless settings.

- “Enable Wireless Networking” is on by default. Connecting the Print Server via an Ethernet cable to the network will automatically disable wireless networking.
- “SSID” is the wireless name of your network. The default setting is “ANY”. This allows the Print Server to connect to the first wireless network it sees. Running the Wizard automatically changes “ANY” to the network SSID found during the setup procedure.
- “Network Type” refers to either an Infrastructure or Ad-Hoc network. Any network with a wireless router or access point is considered an Infrastructure network (default).
- “Channel” is only applicable for Ad-Hoc installations. In infrastructure networks, the wireless router or access point sets the channel automatically.
- To see wireless networks in your area and choose the one you wish to connect to, see “Web Interface – Site Survey” on the next page.



# WEB CONFIGURATION

## Web Interface – Encryption

**IMPORTANT:** Use the following encryption information only if your network is encrypted. If it is not, leave the encryption mode (“WEP Mode” in the dialog box illustrated below) set to its default, “Disabled”.

This menu allows you to activate your Print Server’s encryption feature, which is determined by your existing LAN encryption setting.



To set encryption for your Print Server choose the matching setting in the dialog box above. The following briefly explains the various settings your software makes available:

- 64-bit manually: Selecting this setting will allow you to enter your 64-bit keys, if your wireless network uses 64-bit encryption (see dialog box on the next page).
- 64-bit automatically: Selecting this setting will allow you to enter a pass phrase to automatically generate encryption keys for your Print Server. (**Caution:** This choice can generate new keys that will not function with an existing network. If your network keys [in your router] are already set, use manually instead.)
- 128-bit manually: Selecting this setting will allow you to enter your 128-bit keys, if your existing wireless network is encrypted using 128-bit encryption.

## WEB CONFIGURATION

- 128-bit automatically: Selecting this setting will allow you to enter a pass phrase and the Print Server will determine the keys automatically. (**Warning:** Choosing “automatically” will generate new keys that may not function with an existing network. If your network keys [in your router] are already set, use “manually” instead.)

### WEB Interface – Encryption (64-bit manually)

This menu allows the user to enter keys for 64-bit encryption.

The screenshot shows the 'Wireless > Encryption' configuration page. On the left is a navigation menu with options like 'Network Connection', 'Wireless', 'Channel and SSID', 'Encryption', 'Site Survey', 'Printer Service', 'Print Server Configuration', 'Utilities', 'Restart Print Server', 'Restore Factory Default', 'Save Current Settings', 'Restore Previous Settings', 'Firmware Update', and 'System Settings'. The main content area has the following settings:

- WEP Mode >**: A dropdown menu set to '64-bit manually'.
- WEP Key >**: Four radio buttons labeled 'Key 1', 'Key 2', 'Key 3', and 'Key 4'. 'Key 1' is selected. Each key has five input fields for hex digits.
- Authentication Mode >**: A dropdown menu set to 'open+shared'.

At the bottom right, there are two buttons: 'Clear Changes' and 'Apply Changes'.

To set encryption for your Print Server:

- WEP Mode: Select encryption mode from the drop-down menu.
- WEP Key: Select the appropriate Key number and enter hex digits into all 20 fields consistent with your existing wireless network settings. (**Warning:** Any inconsistencies with your network’s settings will cause the Print Server not to connect to your wireless network).
- Authentication Mode: Default is “open + shared”, which operates with all 64-bit networks.
- Apply Changes: Click this button to complete your settings.

*NOTE: After changing encryption settings, the Print Server must be restarted (power-cycled) to reestablish communication with the network.*

# WEB CONFIGURATION

## WEB Interface – Encryption (64-bit automatically)

This menu allows the user to enter keys for 64-bit encryption.



This mode is exactly like 64-bit manually, (above) except:

- Pass Phrase: Entering a phrase here, for example “Jack and Jill went up the hill” will result in automatic generation of hex keys. (**Note:** Write these down for reference as they must be typed into other network devices [your router] manually for all to interoperate.)
- Apply Changes: Click this button to complete your settings.

*NOTE: After changing encryption settings, the Print Server must be restarted (power-cycled) to reestablish communication with the network.*

# WEB CONFIGURATION

## WEB Interface – Encryption (128-bit manually)

This menu allows the user to enter keys for 128-bit encryption.



To set 128-bit encryption for your Print Server:

- WEP Mode: Select encryption mode from the drop-down menu.
- WEP Key: Enter hex digits into all 13 fields consistent with your existing wireless network settings. (**Warning:** Any inconsistencies with your network's settings will cause the Print Server not to connect to your existing wireless network).
- Authentication Mode: Default is "open + shared", which operates with all 128-bit networks.
- Apply Changes: Click this button to complete your settings.

*NOTE: After changing encryption settings, the Print Server must be restarted (power-cycled) to reestablish communication with the network.*

# WEB CONFIGURATION

## WEB Interface – Encryption (128-bit automatically)

This menu allows the user to enter keys for 128-bit encryption.

The screenshot shows a web configuration interface for a printer. The top navigation bar is blue with the text "Wireless > Encryption". On the left, a vertical menu lists various settings: Network Connection, IP Address, Wireless, Channel and SSID, Encryption (highlighted), Site Survey, Printer Service, Print Server Configuration, Utilities, Restart Print Server, Restore Factory Default, Save Current Settings, Restore Previous Settings, Firmware Update, and System Settings. The main content area is titled "Wireless > Encryption" and contains the following settings:

- WEP Mode >**: A dropdown menu set to "128-bit automatically".
- WEP Key >**: A grid of 12 input boxes for hex keys, arranged in three rows and four columns. The keys are: Row 1: 45, 5b, a4, 1c, 8b; Row 2: b0, 22, 0b, 52, 34; Row 3: c0, 33, 1b.
- Authentication Mode >**: A dropdown menu set to "open+shared".
- Pass Phrase**: A text input field with a "generate" button to its right.
- Buttons**: "Clear Changes" and "Apply Changes" buttons at the bottom right.

This mode is exactly like 128-bit manually, except:

- **Pass Phrase:** Entering a phrase here, for example “Jack and Jill went up the hill” will result in automatic generation of hex keys. (*Note: Write these down for reference as they must be typed into other network devices [your router] manually for all to interoperate.*)
- **Apply Changes:** Click this button to complete your settings.

**NOTE:** After changing encryption settings, the Print Server must be restarted (power-cycled) to reestablish communication with the network.

# WEB CONFIGURATION

## Web Interface – Site Survey

This menu allows the user to see all wireless networks in the area and connect to one.

**Print Server Setup Utility** Printer 1 > hp-photosmart1700  
Printer 2 >

**Site Survey**

Site Survey List:

SSID	BSSID (EUI-64 Address)	Network Name	Encryption	Channel	Signal Strength	Icon
LANbalkin542	88-38-34-90-84-28	Infrastructure	No	11	-81 dBm	<input type="checkbox"/>
PC-LIGHT	88-38-34-90-84-28	Infrastructure	No	11	-81 dBm	<input type="checkbox"/>
54gprnets	88-38-34-90-84-3d	Infrastructure	No	36	-84 dBm	<input type="checkbox"/>
54gprnets	88-38-34-90-84-11	Infrastructure	No	36	-71 dBm	<input type="checkbox"/>
54gprnets	88-38-34-90-84-76	Infrastructure	No	36	-73 dBm	<input type="checkbox"/>
54gprnets	88-38-34-90-84-27	Infrastructure	No	36	-80 dBm	<input type="checkbox"/>
belkin	00-30-84-80-84-84	Infrastructure	No	36	-73 dBm	<input type="checkbox"/>

The network you selected does not require the use of a network key (WEP). To access this network please click "Apply".

## Web Interface – Print Server Configuration

This menu allows the user to modify the following parameters:

- **Print Server Name:** This field identifies the Print Server by name, and each Print Server has a unique name. Unique names are critical in a network with more than one Print Server. If the user wishes to change the name, make sure to use unique names.
- **Raw Printing:** This feature allows clients to print to the Print Server using the standard TCP/IP printer port built into Windows XP and 2000 instead of the Belkin Port Monitor. Using Raw Printing requires the user to configure all port parameters manually and is not recommended for users unfamiliar with TCP/IP printing.
- **FTP Printing:** This feature enables the printer to receive print jobs sent by FTP (see FTP Printing for detailed instructions). Disabling this feature will prevent FTP jobs.





# WEB CONFIGURATION

## Web Interface – Upgrade Firmware

This menu allows the user to upgrade the Print Server's firmware. Before running this application, download the new firmware from the Belkin website at [www.belkin.com](http://www.belkin.com). Be careful to take note of the location of the downloaded file on your computer's hard disk. After downloading, click "Browse" on the screen shown below, select the file name of the downloaded firmware, then click "Apply Changes". The firmware upgrade will take a few minutes.

**NOTE: Do not interrupt the process by removing power from the Print Server or you could cause permanent damage to the device.**

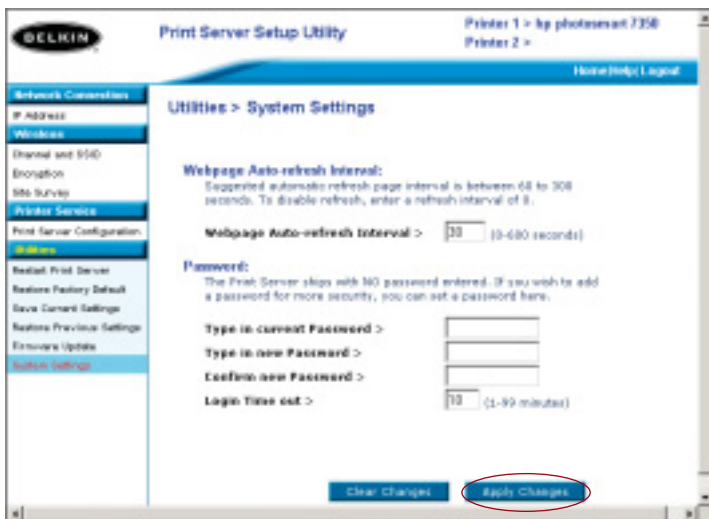


# WEB CONFIGURATION

## Web Interface – System Settings (Changing Password)

The Print Server ships with NO preset password. If you wish to set a password for greater security, be sure to choose a password that you will remember, and make a note of it. This utility will require you to enter the new password twice. If you are entering a password for the first time, leave the “current” password field blank. Press “Apply Changes” when done.

The Web page auto-refresh interval setting can be changed in this menu. If you want a slower or faster interval, choose a number in the range and press “Apply Changes”.

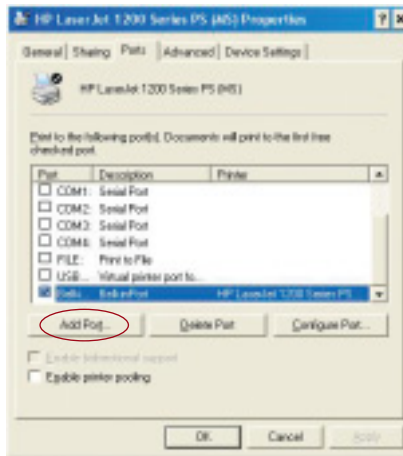


## PRINTING TO MULTIPLE PRINT SERVERS

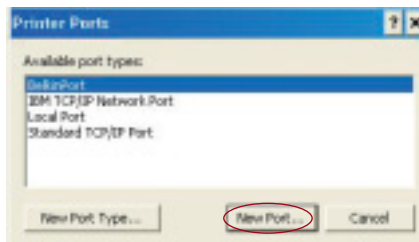
If more than one Print Server is available on your network, and some computers need to be able to print to more than one Print Server, you will need to install the included Belkin Port Monitor (a virtual printer port) software on your PC. The Belkin Port Monitor can then be configured to select different Print Servers on your network to handle specific print jobs.

### Adding a Belkin Port Monitor and Configuring It for a Specific Print Server

1. In Windows, select the printer's properties and select the "Ports" tab.
2. Click "Add Port".



A window showing the printer ports installed on the PC will open. Select "Belkin Port" and, in the "Printer Ports" window, click "New Port".

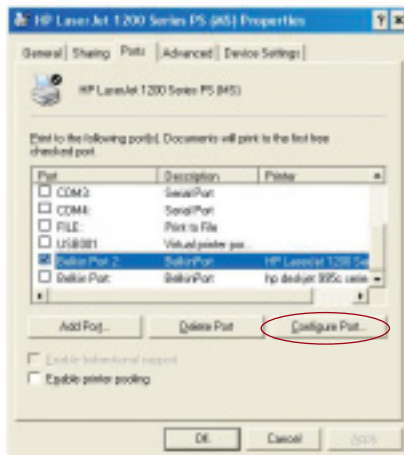


## PRINTING TO MULTIPLE PRINT SERVERS

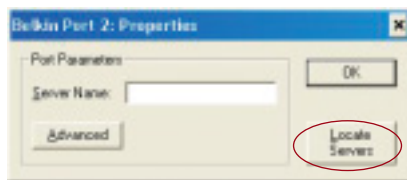
3. In the “Enter New Port” window, enter a unique name for the port and click “OK”.



4. Click “Close” on the “Printer Ports” window.
5. On the “Ports” tab, select the newly created port; click “Configure Port”.

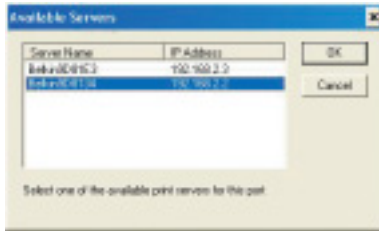


6. On the next window (Belkin Port 2: Properties), click the “Locate Servers” button.

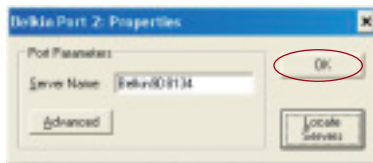


## PRINTING TO MULTIPLE PRINT SERVERS

7. On the “Available Servers” window, select the Print Server to which you want to print.



8. Click “OK” to close. In the “Belkin Port 2: Properties” window, the name of the Print Server you selected will appear in the window.



9. Click “OK” to close.
10. Repeat these steps for each additional Print Server on your network.

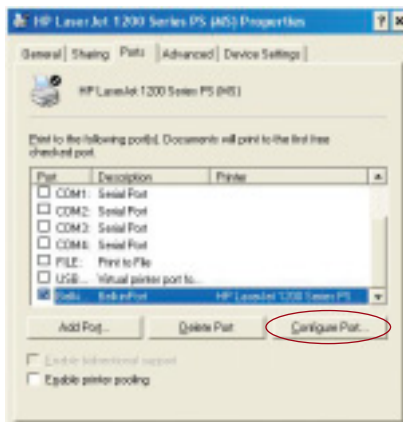
*Warning: When configuring the Port Monitor to send jobs to a specific Print Server, make sure that the correct port is selected for the printer driver in Windows and that the corresponding printer is actually connected to the Print Server that the port is indicating. Mismatching printer drivers, ports, and Print Servers will result in failed print jobs or error prints of multiple pages of indiscernible characters.*

## BELKIN PORT MONITOR ADVANCED MENU

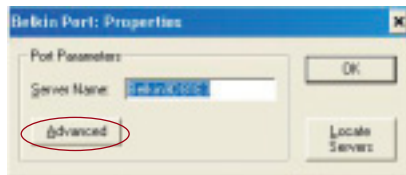
In most cases, the Belkin Port Monitor (a virtual printer port) software will be automatically installed and configured by the Print Server Setup Wizard. Some advanced users may choose to manually configure the Belkin Port Monitor software. This can be achieved by using the Belkin Port Monitor's Advanced Menu, which allows the user to enter a specific Print Server's IP address and to designate a specific printer or "queue" for print jobs connected to that Print Server. The Advanced Menu features help when there is more than one Print Server available on your network, and when print jobs fail because the Port Monitor cannot determine the name of the printer.

### Opening the Belkin Port Monitor Advanced Menu

1. In Windows, select the printer's properties and select the "Ports" tab, select the Belkin Port, and click "Configure Port".



2. In the "Belkin Port: Properties" window, click the "Advanced" tab.



## BELKIN PORT MONITOR ADVANCED MENU

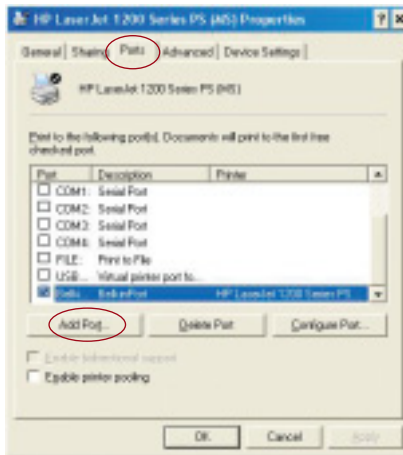
3. The Advanced Menu has fields to enter the Print Server's IP address and the queue name and the port number.

*Note: The port number field by default is 515. In most cases, the port number should not be changed.*



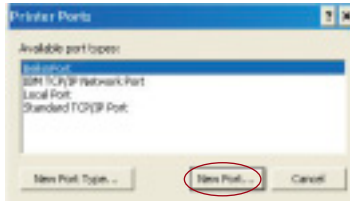
### Adding a Second Belkin Port Monitor and Configuring It for a Specific Print Server

1. In Windows, select the printer's properties and select the "Ports" tab.



## BELKIN PORT MONITOR ADVANCED MENU

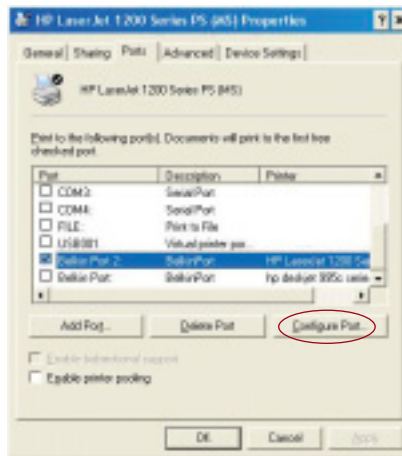
- Click “Add Port”. A window showing the printer ports installed on the PC will open. Select “Belkin Port” and click “New Port”.



- On the “New Port” window, enter a unique name for the port and click “OK”.



- Click “Close” on the “Printer Ports” window.
- On the ‘Ports’ tab, select the newly created port and click “Configure Port”.

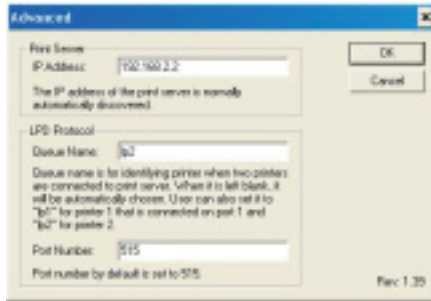


- Click the “Advanced” tab.



## BELKIN PORT MONITOR ADVANCED MENU

7. Add the Print Server's IP address and the queue name of the printer you want to select for the port. The queue name "lp1" will point the port to the printer connected to the printer 1 USB port on the Print Server. The queue name "lp2" will point the port to the printer connected to the printer 2 USB port on the Print Server.



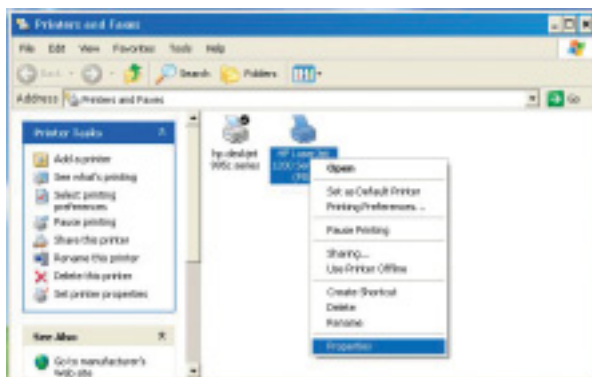
8. Click "OK" to close.

*Warning: When manually configuring the Port Monitor to send jobs to a specific printer, make sure that the correct printer driver is selected and that the Port Monitor's queue name corresponds to the USB port that the printer is connected to on the Print Server. Mismatching the drivers or queue names will result in failed print jobs or error prints of multiple pages of indiscernible characters.*

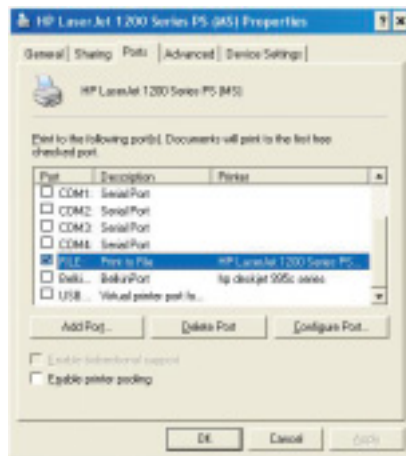
# USING THE PRINT SERVER FOR FTP PRINTING

## Sending Print Jobs to Printers Connected to the Print Server Using FTP

1. In Windows, select the printer's properties.

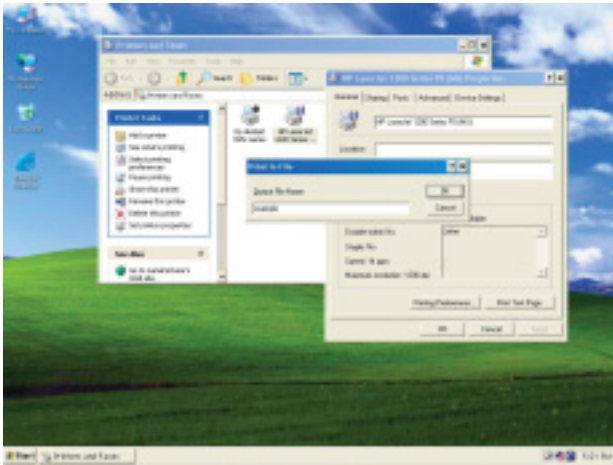


2. Set the printer port to "File", click "Apply".

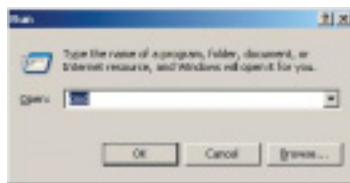


## USING THE PRINT SERVER FOR FTP PRINTING

- Print the document using the printer that you configured. A dialogue box will open prompting you to name the print file. After naming the file, click "OK". A file will be saved to the user's default Windows directory (typically "C:\\" or "C:\Documents and Settings\>").

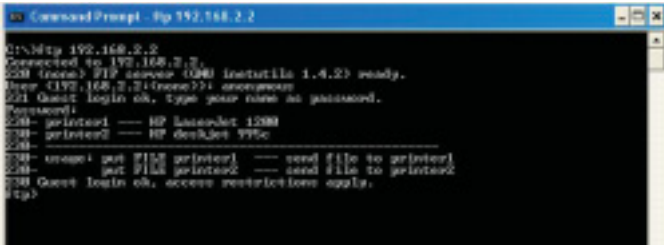


- On the Windows desktop, click "Start>Run" and type in "cmd" for Windows XP and 2000 or "command" for Windows 98SE and Me; click "OK" to open a "Command/MS-DOS Prompt" window.



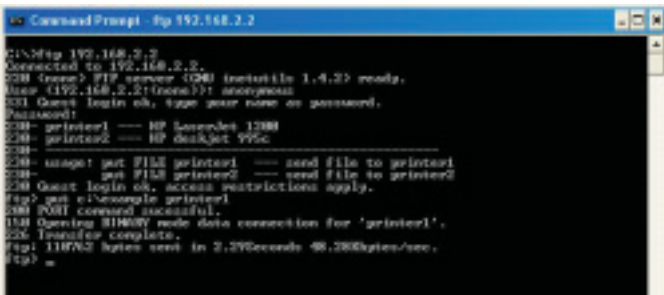
## USING THE PRINT SERVER FOR FTP PRINTING

- At the prompt, type “ftp” followed by the IP address of the Print Server; press the “Enter” key to create an FTP connection with the Print Server.



```
Command Prompt - Ip: 192.168.2.2
C:\>ftp 192.168.2.2
Connected to 192.168.2.2.
(230) (anon) FTP server (230) (anon) ready.
User (192.168.2.2:(anon)): anonymous
(331) Guest login ok, type your name as password.
Password:
(230) printer1 --- HP LaserJet 1200
(230) printer2 --- HP DeskJet 975c
(230)
(230) usage: put FILE printer1 --- send file to printer1
(230) put FILE printer2 --- send file to printer2
(230) Guest login ok, access restrictions apply.
ftp>
```

- When the connection is made, the user will be prompted to enter a user name and a password. The user name for the Print Server is “anonymous”; the password should be left blank. After a successful login, a list of the printers connected to the Print Server will appear, followed by simple usage instructions for how to print the file.
- At the prompt, type “put”, followed by the file path and file name, followed by the printer number (for example, put c:\example printer1).



```
Command Prompt - Ip: 192.168.2.2
C:\>ftp 192.168.2.2
Connected to 192.168.2.2.
(230) (anon) FTP server (230) (anon) ready.
User (192.168.2.2:(anon)): anonymous
(331) Guest login ok, type your name as password.
Password:
(230) printer1 --- HP LaserJet 1200
(230) printer2 --- HP DeskJet 975c
(230)
(230) usage: put FILE printer1 --- send file to printer1
(230) put FILE printer2 --- send file to printer2
(230) Guest login ok, access restrictions apply.
ftp>put c:\example printer1
(230) PORT command successful.
(150) Opening BINARY mode data connection for 'printer1'.
(226) Transfer complete.
ftp>111KB/s bytes sent in 2.270seconds @ 48.28KB/bytes/sec.
ftp>
```

- The file will be sent to the Print Server. When the transfer is complete, another prompt will appear. If finished, type “quit” and press “Enter” to end the FTP session. Then, close the “Command Prompt” window.

*Note: FTP Printing by default is enabled in the Print Server. It can be disabled using the Print Server’s Web-Based Setup Interface.*

### Cannot find Print Server

If the Wizard cannot find your Print Server even though it appears to be functioning properly, the problem may be that there is another wireless network in the area and the Print Server has associated with it.

In this case, you can:

- Try repowering the Print Server. This might allow it to connect to the correct wireless network.
- or—
- Connect the Print Server to the network (to the router) using an Ethernet cable.

Other possible reasons that the Wizard might fail to find the Print Server are:

- security settings on the existing wireless network—such as Encryption;
- the wireless network not broadcasting an SSID; or
- MAC address filtering settings on the network.

Encryption and SSID settings can be entered on the Print Server to overcome the first two problems; however, if the network is blocking new devices by MAC address, your router will need to be configured to allow the Print Server to associate (see your router's documentation).

### Print job not going to correct printer, or not printing at all

- It could be that the computer is set to print to the wrong printer. Verify that the printer connected to the Print Server is set as the "default printer".
- When troubleshooting a printing problem, try to determine whether any of the computers on the network can access the Print Server. If some computers can print, and some cannot, then the problem is most likely not the Print Server or the printer, but the printer driver settings on the specific computer. In this case, run the Print Server Setup Wizard again to reconfigure the computer. If this still doesn't correct the problem, delete the printer driver from your computer. Reinstall it using the manufacturer's CD that came with your printer (it should direct you to check the manufacturer's website for updated drivers); then run the Setup Wizard again. In some cases, drivers from a printer manufacturer might support

## TROUBLESHOOTING

Print Servers in Windows XP or 2000, but not Windows 98. Check the Belkin website for compatibility issues at:  
<http://web.belkin.com/support/F1UP0001>.

- If none of the computers can access the Print Server, then either:
  1. The Print Server has not been configured correctly (in this case, rerun the Setup Wizard);
  2. Or, the printer you have connected to the Print Server does not support a print-server connection. Check the Belkin website for printer compatibility issues at: <http://web.belkin.com/support/F1UP0001>.

### **“Subnet warning” error screen appears during setup**

The subnet warning is generally associated with the existence of more than one network in the area. Subnet warnings occur when the Print Server has an IP address from one network domain, and the computer is on another network domain. The best solution in this case is to connect the Print Server to the network using an Ethernet cable and to configure it using the Setup Wizard. Then, after it has been configured into the correct subnet, disconnect the cable, and then reattempt the wireless setup using the Wizard.

If the Print Server has been configured before, and the IP address has already been set to another subnet, the best solution is to restore factory defaults on the Print Server. Do this by holding down the reset button while repowering the Print Server. After a reset, the Print Server will generally receive an IP address in the correct subnet.

### **“No printer” error screen appears during setup**

In most cases, this error occurs when the printer is not powered on, or it is not enabled (or online). After you have checked this, make sure that it is not out of paper or jammed. Some printers “sleep” after periods of inactivity. In any of these cases, restore the printer to functionality, then, if necessary, reboot the Print Server.

Some USB printers are not compatible with Print Servers. To check the Belkin website for compatibility information, go to:  
<http://web.belkin.com/support/F1UP0001>.

## TROUBLESHOOTING

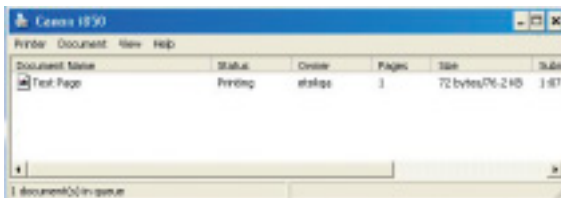
### **“Cannot communicate with printer” or “printer not found” error message appears in Printer Driver Status Monitor**

Again, this may result from the printer being powered off or from any of the issues mentioned above. Check that the printer is online, and make sure that it is not out of paper or jammed. Some printers “sleep” after periods of inactivity. In any of these cases, restore the printer to functionality, then, if necessary, reboot the Print Server.

If those issues are addressed and the problem still exists, Belkin recommends that the user disable the Printer Driver Status Monitor on the computer. The status monitor, a convenient checkpoint for the user, usually requires a direct connection between the computer and the printer. It may not communicate with the printer when connected to a print server on a network.



Instead, use the Windows “Printer Status” window to check printing status.



## TECHNICAL SUPPORT

Find technical support information at [support.belkin.com](http://support.belkin.com) or [www.belkin.com](http://www.belkin.com) through the tech support link. For updated information on troubleshooting tips or for printer compatibility, use:  
<http://web.belkin.com/support/F1UP0001>.

Contact Belkin Technical Support by phone at 877-736-5771.



## FCC Statement

### DECLARATION OF CONFORMITY WITH FCC RULES FOR ELECTROMAGNETIC COMPATIBILITY

We, Belkin Corporation, of 501 West Walnut Street, Compton, CA 90220, declare under our sole responsibility that the product,

F1UP0001

to which this declaration relates, complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Caution: Exposure to Radio Frequency Radiation.

The radiated output power of this device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such manner that the potential for human contact normal operation is minimized.

When connecting an external antenna to the device, the antenna shall be placed in such a manner to minimize the potential for human contact during normal operation. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

## Federal Communications Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## Modifications

The FCC requires the user to be notified that any changes or modifications to this device that are not expressly approved by Belkin Corporation may void the users authority to operate the equipment.

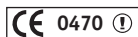
## Canada-Industry Canada (IC)

The wireless radio of this device complies with RSS 139 & RSS 210 Industry Canada. This Class B digital complies with Canadian ICES-003.

Cet appareil numérique de la classe B conforme à la norme NMB-003 du Canada.

## Europe-European Union Notice

Radio products with the CE 0682 or CE alert marking comply with the R&TTE Directive (1995/5/EC) issued by the Commission of the European Community.



Compliance with this directive implies conformity to the following European Norms (in brackets are the equivalent international standards).

- EN 60950 (IEC60950) – Product Safety
- EN 300 328 Technical requirement for radio equipment
- ETS 300 826 General EMC requirements for radio equipment.



To determine the type of transmitter, check the identification label on your Belkin product.

Products with the CE marking comply with the EMC Directive (89/336/EEC) and the Low Voltage Directive (72/23/EEC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms (in brackets are the equivalent international standards).

- EN 55022 (CISPR 22) – Electromagnetic Interference
- EN 55024 (IEC61000-4-2,3,4,5,6,8,11)- Electromagnetic Immunity
- EN 61000-3-2 (IEC610000-3-2) - Power Line Harmonics
- EN 61000-3-3 (IEC610000) – Power Line Flicker
- EN 60950 (IEC60950) – Product Safety



Products that contain the radio transmitter are labeled with CE 0682 or CE alert marking and may also carry the CE logo.

## **Belkin Corporation Limited Lifetime Product Warranty**

Belkin Corporation warrants this product against defects in materials and workmanship for its lifetime. If a defect is discovered, Belkin will, at its option, repair or replace the product at no charge provided it is returned during the warranty period, with transportation charges prepaid, to the authorized Belkin dealer from whom you purchased the product. Proof of purchase may be required.

This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication; if the product has been modified without the written permission of Belkin; or if any Belkin serial number has been removed or defaced.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE IN LIEU OF ALL OTHERS, WHETHER ORAL OR WRITTEN, EXPRESSED OR IMPLIED. BELKIN SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

No Belkin dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

BELKIN IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO, LOST PROFITS, DOWNTIME, GOODWILL, DAMAGE TO OR REPROGRAMMING OR REPRODUCING ANY PROGRAM OR DATA STORED IN, OR USED WITH, BELKIN PRODUCTS.

Some states do not allow the exclusion or limitation of incidental or consequential damages or exclusions of implied warranties, so the above limitations of exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.



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